

23. REQUEST FOR "AMENDMENT AND MODIFICATION OF STATE OIL AND GAS LEASE P.R.C. 91.1 (SECONDARY RECOVERY)", HUNTINGTON BEACH, ORANGE COUNTY; SIGNAL OIL AND GAS COMPANY, AND HUMBLE OIL & REFINING COMPANY - W.O. 5750.

After consideration of Calendar Item 29 attached, and upon motion duly made and unanimously carried, the following resolution was adopted:

THE COMMISSION:

1. PURSUANT TO SECTION 6830.2 OF THE PUBLIC RESOURCES CODE, DETERMINES THAT IT IS IN THE BEST INTEREST OF THE STATE THAT THE PROPOSED AMENDATORY AGREEMENT BE ENTERED INTO; AND
2. AUTHORIZES THE EXECUTIVE OFFICER TO EXECUTE AND ISSUE AN "AMENDMENT AND MODIFICATION OF STATE OIL AND GAS LEASE P.R.C. 91.1 (SECONDARY RECOVERY)" A COPY OF WHICH IS HEREBY MADE A PART HEREOF BY REFERENCE TO THE OFFICIAL FILES OF THE COMMISSION.

ALL OTHER TERMS AND CONDITIONS OF STATE OIL AND GAS LEASE P.R.C. 91.1 SHALL REMAIN IN FULL FORCE AND EFFECT.

Attachment

Calendar Item 29 (2 pages)

REQUEST FOR "AMENDMENT AND MODIFICATION OF STATE OIL AND GAS LEASE P.R.C. 91.1 (SECONDARY RECOVERY)", HUNTINGTON BEACH, ORANGE COUNTY; SIGNAL OIL AND GAS COMPANY, AND HUMBLE OIL & REFINING COMPANY - W.O. 5750.

An application has been received from Signal and Humble requesting modification of Lease P.R.C. 91.1 to provide for secondary recovery.

Oil and Gas Lease P.R.C. 91.1 (Exhibit "2") was issued on May 21, 1943, for a period of 20 years, pursuant to competitive public bidding and on November 12, 1957, the lease term was extended by the Commission in accordance with the provisions of Section 6827 of the Public Resources Code. The present lessees are Signal Oil and Gas Company and Humble Oil & Refining Company.

On November 6, 1963 (Minute Item 21, page 9, 62), and on July 2, 1965 (Minute Item 21, page 11, 383), the Commission approved the modification of Oil and Gas Lease E-392.1 and Oil and Gas Lease P.R.C. 425.1, respectively, adjacent to the subject lease, to provide for secondary recovery operations. Full scale water-injection operations were initiated on E-392.1 on December 1, 1963.

As of March 1, 1966, 40,220,553 barrels of water had been injected. It is estimated that 2,399,067 barrels of accelerated primary production have been produced in addition to the normal primary production of 14,222,570 barrels that was predicted to be obtained without the waterflood, indicating that the project is proving to be successful.

The existent lease requires oil royalty payments to the State based on the calculation of graduated royalty rates determined by formula from the rates of production of the wells. The required capital investment and additional operating costs for a waterflood program could not be justified by the lessee if the calculation of graduated royalty rates were also to be applicable to augmented production resulting from a waterflood program. Chapter 979, Statutes of 1961, which added Sections 6830.1, 6830.2, and 6830.3 to the Public Resources Code, authorizes lease modifications, with the approval of the Commission, for calculation of royalties on "primary" oil (i.e., that which would have been produced without a secondary recovery program) at the same rates that would have been applicable under the unmodified lease, and for establishment of the royalty rate for the "secondary" oil (i.e., production resulting from the secondary recovery operation) at not less than the minimum royalty provided by the prior lease (in this instance 12 $\frac{1}{2}$ %). Complete economic projections, concurred in by lessee and staff, estimate the equivalent average royalty rate on remaining "primary" production at 12.63% (if secondary recovery operations are initiated during May 1966), which rate is proposed to be established for all "secondary" production.

The engineering and economic determinations required by Sections 6830.1, 6830.2, and 6830.3, Public Resources Code, have been made and incorporated in a proposed form of "Amendment and Modification of State Oil and Gas Lease P.R.C. 91.1 (Secondary Recovery)". This document has been reviewed as to legality by the office of the Attorney General, which have advised by informal opinion

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that the proposed amendment and modification is in compliance with the applicable statutes of the Public Resources Code.

IT IS RECOMMENDED THAT THE COMMISSION:

1. PURSUANT TO SECTION 6830.2 OF THE PUBLIC RESOURCES CODE, DETERMINE THAT IT IS IN THE BEST INTEREST OF THE STATE THAT THE PROPOSED AMENDATORY AGREEMENT BE ENTERED INTO; AND
2. AUTHORIZE THE EXECUTIVE OFFICER TO EXECUTE AND ISSUE AN "AMENDMENT AND MODIFICATION OF STATE OIL AND GAS LEASE P.R.C. 91.1 (SECONDARY RECOVERY)" A COPY OF WHICH IS HEREBY MADE A PART HEREOF BY REFERENCE TO THE OFFICIAL FILES OF THE COMMISSION.

ALL OTHER TERMS AND CONDITIONS OF STATE OIL AND GAS LEASE P.R.C. 91.1 SHALL REMAIN IN FULL FORCE AND EFFECT.